

USSR

L UDC 681.333:519.2

BOYCHENKO, V. M., LEUSENKO, A. YE., TOTAYEV, L. T., Taganrog Radio-technical Institute

"A Random Number Generator"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratzy, Tovarnyye Znaki, No 4, 1970, p 92, patent No 260969, filed 24 Jun 65

Abstract: This author's Certificate introduces a random number generator with an arbitrary distribution law. The device contains generators of uniformly distributed random numbers, a cycle generator, a digital comparison circuit, a memory device, rectifiers, delay lines, a binary counter, and a decoder. As a distinguishing feature of the patent, the device is simplified by connecting the output of the digital comparison circuit to its input through the delay lines, the binary counter, the decoder, and the memory device.

1/1

UDC: 621.923.046:669.14.013.44

USSR

SOVKIN, V. F., LEUSHKIN, I. P., and KHAVIN, V. M.

"Increasing the Productivity of Grinding Valves Made From Heat-Resisting Steel"

Moscow, Mashinostroitel', No 12, Dec 72, pp 33-34

Abstract: Studies were conducted at the Kuybyshev Valve Plant with the aim of selecting optimal disc characteristics and cutting conditions for the centerless grinding of valves made from EI69 grade steel. A table is given for the 12 PP600X150X305 grinding discs tested. The following basic indices were used in evaluating the quality of these discs and the effectiveness of the grinding process: Q_m -- removal of metal in mm³/minute, Q_a -- disc wear in mm³/minute,

$g = \frac{Q_m}{Q_a}$ -- specific productivity, T -- stability of a disc in minutes, and R_a -- roughness of the ground surface in microns. The results show that the stabilization of the speed of the disc by increasing its active surface and by determining optimal truing conditions represent a reserve for increasing the effectiveness of grinding heat-resisting grades of steel. The ES50S1K6 disc proved optimal for all cutting conditions. The introduction of the study results increased labor productivity, improved the quality of the machined parts, saved diamonds, abrasives, and saved 738 rubles in only one operation of grinding 200 thousand valves. 1/1

3

UDC 621.397

USSR

SOLOVEYCHIK, I.YE., DRAKIN, R.I., YARMARKIN, K.K., LEUSKAYA, G.Y.,
SHARGORODSKAYA, F.M., KORNIENKO, G.G., TSEDIK, A.S.

"Electronic Device For Information Display"

Elektrosvyaz', No 1, Jan 1972, pp 59-63

Abstract: The paper describes an information display device of the desk type, intended for operation with an electronic computer through a telegraph communication channel. A block diagram of the device and the basic parameters of the unit are presented. The authors report that a new information display device was developed on the basis of the unit described, but few details are given. (An exterior view of the device is shown on the journal cover.) In the new device it is possible to reproduce 512 symbols (16 lines, 32 symbols to the line) of an ELT231K9B screen. The set of reproducible symbols includes the Russian alphabet, figures, and special symbols--altogether 64 symbols. With an individual keyboard which has 47 figure-letter keys and 21 functional, it is possible to feed information into an electronic computer and to accomplish complete editing of the text with the aid of an electronic carriage (marker). The device contains a special exchange unit which makes it possible to operate with an electronic computer in GOST 10859-64 code and in code BTK-2. In addition, this unit provides coupling with the "Minsk-32" computer for the slow channel. 5 fig. 1 tab.

1/1

1/2 032
TITLE--ON THEORY OF BIOLOGICAL EFFECT OF VITAMIN A -U-
UNCLASSIFIED
PROCESSING DATE--16OCT70
AUTHOR--LEUTSKIY, K.M.
COUNTRY OF INFO--USSR
SOURCE--UKRAYNS'KIY BICKHIMICHNIY ZHURNAL, 1970, VOL 42, NR 2, PP 257-269
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--VITAMIN, CELL MEMBRANE, LIPID, PROTEIN SYNTHESIS, METABOLISM,
SODIUM, POTASSIUM, AMINO ACID, ANTIBODY, NUCLEIC ACID, ENZYME ACTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1988/1694

STEP NO--UR/0300/70/042/002/0257/0269

CIRC ACCESSION NO--AP0106440

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--160CT70

2/2 032

CIRC ACCESSION NO--AP0106440
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. ON THE BASIS OF THE PRESENTED EXPERIMENTAL DATA A THEORY IS GIVEN OF THE POSSIBLE MECHANISM OF BIOLOGICAL EFFECT OF VITAMIN A. VITAMIN A IS A STRUCTURAL ELEMENT OF CELL MEMBRANE. IT IS DISTRIBUTED IN IT IN THE LIPIDINE CHOLESTERINE LAYER. LIPIDS IN MEMBRANE ARE CONNECTED WITH PROTEIN BY ELECTROSTATIC AND POLARIZATION LINKS AS A RESULT THEY POSSESS GREATER STABILITY. VITAMIN A IS CONNECTED IN MEMBRANE WITH LIPIDS AND PROTEIN BY THEIR COOH, OH AND CH₃ RADICALS. CHANGE IN CONTENT OF VITAMIN C REFLECTS ON THE FUNCTION OF MEMBRANES. WITH THE DECREASE OF CONTENT THE INTENSITY RISES OF OXYGEN ABSORPTION BY A CELL, EXPENDITURE OF ENERGY, CHANGES APPEAR IN THE METABOLISM OF SODIUM AND POTASSIUM. PARALLEL WITH THIS FACT PENETRABILITY IS CHANGED OF AMINO ACIDS INTO THE CELL. CHANGES OCCUR IN PROTEIN BIOSYNTHESIS AND, FIRST OF ALL, IN THE QUICKLY REGENERATING CELLS. IN THE EPITHELIAL ONES THAT RESULTS IN FUNCTION OF GLANDS AND ORGANISM GROWTH. CHANGES IN PROTEIN BIOSYNTHESIS DISTURB THE PROCESS OF ANTIBODY FORMATION, AFFECT THE IMMUNOLOGICAL POSSIBILITIES OF AN ORGANISM. THE ANTIINFECTIONOUS ROLE OF VITAMIN A IS DETERMINED BY THIS PHENOMENA. CHANGES IN BIOSYNTHESIS OF PROTEIN CANNOT HAVE AN EFFECT ON ACTIVITY OF SOME ENZYMES, METABOLISM OF NUCLEIC ACIDS.

FACILITY: STATE UNIVERSITY, CHERNOVITSY.

UNCLASSIFIED

1/2 014
UNCLASSIFIED
PROCESSING DATE--16OCT70
TITLE--DIRECT EVIDENCE OF SODIUM RELEASE IN THE COURSE OF NA PRIME
POSITIVE, K PRIME POSITIVE DEPENDENT ATPASE REACTION --U-
AUTHOR--(02)--LEV, A.A., PISAREVA, L.N.
COUNTRY OF INFO--USSR
SOURCE--BIOCHEM. BIOPHYS. RES. COMMUN. 1970, 38(3), 465-9
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--KIDNEY, MICROSOME, ADENOSINE TRIPHOSPHATE, ENZYME ACTIVITY,
CHEMICAL ANALYSIS, ELECTROMETRY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/0309
STEP NO--US/0000/70/033/003/0465/0469
CIRC ACCESSION NO--APO119296
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--16OCT70

2/2 014

CIRC ACCESSION NO--AP0119296

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. MICROSOMAL ATPASE MATERIAL FROM GUINEA PIG KIDNEY CORTEX WAS PREPD. ACCORDING TO POST AND SEN IN 10M MU IMIDAZOLE BUFFER CONTG. 12-5 MG MICROSOAL PROTEIN. STABLE NA PRIME POSITIVE SENSITIVE ELECTRODES WERE IMMERSSED IN THE TEST SOLN. AFTER CALIBRATION IN NA CL SOLNS. CHANGES OF NA PRIME POSITIVE ACTIVITY WERE AUTOMATICALLY RECORDED UPON SEQUENTIAL ADDN. OF 3M MU MGCL SUB2, 2.5 M MU NA ATP AND 2.0M MU KCL. ATPASE WAS FOUND TO BE SIMILAR TO 60PERCENT WHEN COMPARED WITH THE OPTIMAL ACTIVITY FOR THE SAME SUSPENSION. A STATISTICALLY SIGNIFICANT RELEASE OF NA PRIME POSITIVE WAS OBTAINED UPON ADDN. OF K PRIME POSITIVE TO THE TEST MIXT. THE NA PRIME POSITIVE RELEASE WAS COMPLETELY INHIBITED BY CACL SUB2, OMISSION OF ATP, OR SUBSTITUTION OF ADP FOR ATP. NO EFFECT WAS OBTAINED WITH QUABAIN. IT WAS FOUND THAT 100 NA PRIME POSITIVE WER RELEASED FOR EACH INDRG. PHOSPHATE FORMED.

LENINGRAD, USSR.

FACILITY: LAB. CELL PHYSIOL., INST. CYTO.,

UNCLASSIFIED

UDC 612.122:599.32

USSR

SOKOLOV, V. Ye., ~~LEV, B. S.~~, and KUZNETSOV, G. V., Institute of Evolutionary Morphology and Ecology of Animals imeni A. N. Severtsov

"Diurnal Rhythm of the Blood Sugar Level of Some Rodents"

Sverdlovsk, Ekologiya, No 6, 1971, pp 63-68

Abstract: Because of the lack of information on diurnal changes in blood sugar level in wild rodents, and because of contradictions in such information from laboratory experiments, analyses were made every 3 hours during a day on 37 field mice (*Apodemus agrarius*) 113 wood mice (*Apodemus sylvaticus*), 50 bank voles (*Clethrionomys glareolus*), and 59 brush voles (*Microtus majori*) in the summer of 1966 in the Western Caucasus at 700 meters in the forest zone and in the subalpine zone at 1,700 meters, and in Voronezhskiy Game Preserve in the summer of 1967. Blood sugar levels were higher at night than during the day for all mice, but differences were statistically insignificant for field and forest zone wood mice. Two maximums and 2 minimums were recorded for the voles, but differences were statistically insignificant. Fluctuations are small in brush voles at 1,700 meters, probably because of the polyphasic nature of their activity. Higher levels correlated with periods of higher activity in mice, while no such correlation was detected for the voles, probably because of irregularities in technique and polyphasic diurnal

1/2

USSR

SOKOLOV, V. Ye., et al., Ekologiya, No 6, 1971, pp 63-68

activity. Blood sugar levels were higher at higher altitudes and in animals living farther north due to effects of lower temperature and less oxygen on metabolism. Pregnant field mice had higher levels than nonpregnant ones, probably due to increased energy expenditure for gestation. Differences in blood sugar levels between field mice and bank voles were probably minor because of similar dietary specializations and identical metabolic properties, while significant differences in these two attributes correlated with higher levels in brush voles than in bank voles. A study of seasonal changes for bank voles demonstrated the highest levels in fall, followed by decreases in winter, and insignificant increases in the spring, again correlating with metabolic changes. Thus diurnal and seasonal changes in blood sugar level of these rodents are biochemical adaptations that are closely connected with metabolic and activity rhythms.

2/2

- 76 -

UDC: 550.834

USSR

LEV, I. S., GRODZENSKIY, V. A., VISENYAKOV, Ye. P., KUNENIN, A. A., DUNA-
YEVA, L. P., All-Union Scientific Research Institute of Geophysical Methods
of Prospecting

"A Statistical Seismic Signal Analyzer"

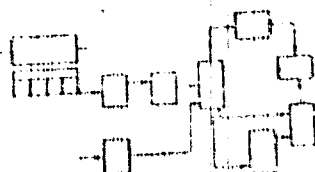
Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztzy, *Tekhnicheskaya Zhurn.*,
No 11, Apr 72, Author's Certificate No 333509, Division 4, filed 20 Aug 70,
published 21 Mar 72, p 183

Translation: This Author's Certificate introduces a statistical seismic
signal analyzer which contains a magnetic drum, playback heads, a trigger
module, amplifiers and flip oscillators. As a distinguishing feature of
the patent, the effectiveness of processing seismic data is improved by
adding a program control unit connected to a trip number counter and a
channel commutator. The commutator output is connected to the same counter
which is connected in turn to a memory device. A code pulse shaper circuit
is connected between the channel commutator and the memory device.

1/2

USSR

LEV, I. S. et al., USSR Author's Certificate No 333509



AA0046290 -

UR 0482

1/10

Soviet Inventions Illustrated, Section II Electrical, Derwent,

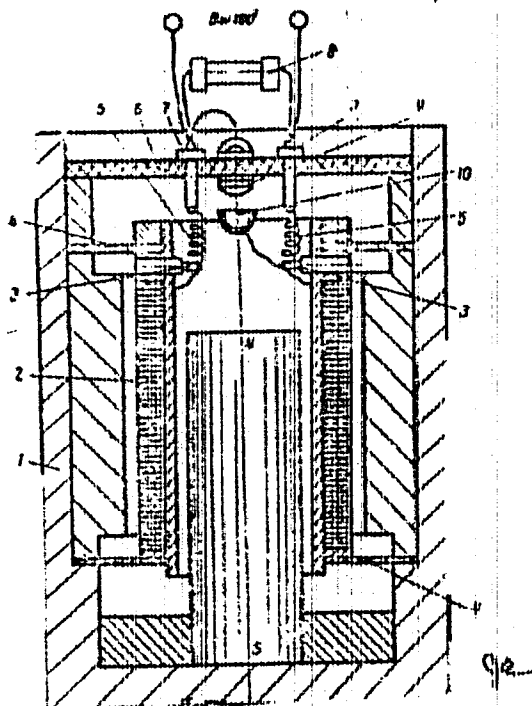
241721 SEISMOGRAPH ensuring adequate and reliable indication of polarity comprises a magnetic system 1, a movable coil with winding 2 and a pair of electric contacts 3 electrically insulated from the body. These contacts are connected to the winding and in one of the limiting positions of the inert mass (represented in this case by 2) they are operated so that the winding is shortcircuited.
22.3.68 as 1226912/26-25, I. S. LEV O. I. KOVALEY.
GEOPHYSICAL INVESTIGATION TECHNIQUES RES. INST. (10.9.69)
Bul 14/10.9.69. Class 42c. Int. Cl. C 01v.

Vsesoyuzny Nauchno - Issledovatel'skiy Institut
Geofizicheskikh Metodov Razvedki

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19781445

AA0046290



19781446

Acc. Nr:

AP0105527

LEV I E.
Abstracting Service:
CHEMICAL ABST. 6+70

Ref. Code:

4R0370

124274y Segregation of chromium and manganese in cementite. Lev, I. E.; Malik, I. V.; Taran, Yu. N. (USSR), etc. *Akad. Nauk SSSR, Metal.* 1970, (1), 134-7 (Russ). The microsepn. of Mn and Cr from cementite alloys Fe-C-Mn and Fe-C-Cr was studied by local x-ray anal. In Mn alloys direct segregation occurs; in Cr alloys inverse segregation occurs.

Jehudiah Eliassaf

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USSR

LEV, I. Ya., et al., Izv. VUZ, Chern. Mekh., 1974, No 11, 1301-1302.

increased, content of chromium and tungsten for alloying also increased and not noticeably influence the initial stage of creep, but at 600°C, during creep at 453-675° K, increased the resistance of steel at higher heating.

2/2

UDC 546.28

USSR

RATNIKOV, D.G., DOBROVOL'SKAYA, V.I., LEV, L.R.

"Electromagnetic Profiling During Non-Crucible Growth Of Silicon Crystals"

Tr. Vses. n.-i. i proyekt.-konstrukt. in-ta tekhn. vysok. chastoty (Works Of The All-Union Scientific-Research And Planning-Design Institute Of High-Frequency Currents), 1972, Issue 12, pp 87-93 (from RZh: Elektrotehnika i energetika, No 6, June 1972, Abstract No 6887)

Translation: A method is described of preparing Si crystals by the electromagnetic profiling method, at the base of which is located the technology of preparing single crystals of circular cross section by non-crucible pulling from the pedestal. A melting inductor was used as a shaper (formoobrazovatelya). The current frequency was chosen for the condition of the maximum electrodynamic effect on the column of the melt at the crystallization front with a minimum thermal effect on the crystals being pulled. It is established that melting of the end of the pedestal and profiling of the crystals can lead to one and the same frequency by one and the same inductor. In the method developed, the requirement on the precision of production and the arrangement of the inductors is higher than with non-crucible melting and pulling of crystals of circular cross sections. 4 ill. 4 ref. V.I.Telyatnikov.

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- 76 -

UDC 616.61-002.151-02

USSR

AGAPONOV, V. I., Maj Gen Med Serv, Docent; LEV, M. I., Col Med Serv; NOSKOV, F. S., Lt Col Med Serv, Candidate of Medical Sciences; KONIKOVA, R. Ye., Candidate of Biological Sciences; YELIGULASHVILI, R. K., Candidate of Medical Sciences; GAVRILYUK, B. K., Doctor of Medical Sciences; KULIKOV, I. A., Lt Col Med Serv; YEFIMOV, L. S., Lt Col Med Serv; SERGEYCHIK, I. I., Capt Med Serv; BELYAYEVA, H. S.

"Etiological Decoding of an Outbreak of Hemorrhagic Fever With a Renal Syndrome"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 9, Sep '71, pp 46-49

Abstract: In June and July 1970, in the southern area of Khabarovskiy Kray, an outbreak of hemorrhagic fever with a renal syndrome (HFRS) occurred among workers employed on construction work and housed in a tent camp located on a hill surrounded by swampy meadows. Despite repeated rodent extermination, the camp area was infested with rodents and ticks. Relocation of the workers to a nearby village halted the outbreak. Only one of the 34 hospitalized workers died. The onset of the

1/2

USSR

AGAFONOV, V. I., et al, Voyenno-Meditsinskiy Zhurnal, No 9,
Sep 71, pp 46-49

disease was acute, and fever of 39-41°C lasted 3-15 days. Renal and cardiovascular insufficiency developed in five patients. The clinical picture was atypical, suggesting both HFRS and leptospirosis. After test for Leptospira proved negative in all patients, two types of tests for hemorrhagic fever antigens were performed: indirect hemagglutination inhibition and agglutination with fluorescent antibodies. In the indirect hemagglutination tests, sheep erythrocytes sensitized with antibodies against the 10-10 strain of hemorrhagic nephrosonephritis (HNN) were used. All tests were positive. The fluorescence tests yielded green granular fluorescence in spleen smears. It is concluded that the green granular fluorescence is specific for HNN, and that the granules represent areas of replication of the HNN virus.

2/2

- 41 -

UIC 533.697

USSR

KOPELEV, S. Z., LIKERZAK, YE. YE. and LEV, S. G.

"On the Computation of Parameters for a Lattice with Air Cooling"

Moscow, Gazoturbin. i kombinir. ustanovki (Gas-Turbine and Combined Installations, Collection of Works), 1971 (1972) pp 118-125, (from Referativnyi Zhurnal -- Mekhanika, No 4, 1973, Abstract No 4B368 by A. G. Plotkina)

Translation: In place of the ordinarily used estimate the flow irregularity with the value of the amplitude of the parameter variation, it is proposed to use the coefficient of irregularity, determined independently from two different conservation equations. Thus, for example, the average velocity could be determined from the equation of the content of motion $\bar{c} = I/G$, where $I = \int c dG$ and from the equation of kinetic energy flow $\bar{c} = \sqrt{E/G}$, where $E = \int c^2 dG$.

Analogous expressions may be obtained for temperature and density from the state and flow-rate equations. On the basis of the work of Karalke (in the collection Osnovy gazovoy dinamiki [Fundamentals of Gas Dynamics], Moscow, Published by the Institute of Literature, 1963) two coefficients

$\alpha = \bar{I}/\bar{T}$ and $\beta = (\bar{c}/\bar{c})^2$ are used for evaluation of flow irregularity. Using these coefficients (neglecting the loss of quantities of motion, moments and

1/2

USSR

KOPELEV, S. Z., et al., Gazoturbin. i kombinir. astanovki, 1971(1972) pp 113-125

mechanical energy at the outer limits) the authors obtained a full system of conservation equations. The values of coefficients alpha and beta are obtained for a flat nozzle lattice with distances from the output edge z greater than or equal to 4 mm from the processing of experimental data produced with this equation. The greatest deviation from unity of the values of these coefficients (occurring in uniform flow) are observed near the root of the blade with alpha equal to 0.89 and beta to 1.12. At the mean diameter, alpha equals 0.935 and beta 1.06. Nonuniformity of flow was also investigated beyond the flat lattice with an edge blown through the output edge of different quantities of coolant up to 5% of the basic flow. It was shown that up to a value of the cooling flow approximately equaling 2% a loss of ram pressure occurs; at large values, ram pressure increases as a result of the introduction of additional mass and energy.

2/2

- 122 -

1/2 028 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--INVESTIGATION OF THE GETE,CU SUB2 TE SYSTEM --U--
AUTHOR--(04)-ABRIKOSOV, N.KH., BANKINA, V.F., LEV, YE.YA., SYGOYEVA, L.M.
COUNTRY OF INFO--USSR
SOURCE--IZV. SSSR. MOSCOW, NEORGANICHESKIYE MATERIALY, VOL 6, NO 5, MAY
70, PP 864-867
DATE PUBLISHED----MAY70
SUBJECT AREAS--MATERIALS, PHYSICS
TOPIC TAGS--GERMANIUM ALLOY, TELLURIUM ALLOY, COPPER ALLOY, TELLURIDE,
SOLID SOLUTION, SEMICONDUCTOR MATERIAL, INTERMETALLIC COMPOUND,
METALLURGIC RESEARCH FACILITY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3005/1540 STEP NO--UR/0363/70/006/005/0064/0867
CIRC ACCESSION NO--AP0133464
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--04DEC70

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CIRC ACCESSION NO--AP0133464

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ALLOYS OF THE GERMANIUM TELLURIUM COPPER TERNARY SYSTEM WERE STUDIED ALONG THE GE SUBO.97 TE, CU SUB2 TE PROFILE. THIS IS A QUASIBINARY PROFILE OF THE EUTECTIC TYPE WITH LIMITED REGIONS OF SOLID SOLUTIONS. THE AUTHORS ANALYZED THE MECHANISM OF THE FORMATION OF SOLID SOLUTIONS BASED ON GERMANIUM TELLURIDE AND SHOWED THAT WITH SOLUTION OF CU SUB2 TE, A PORTION OF COPPER ATOMS DISSOLVES IN THE VACANCIES, LOWERING THE CONCENTRATION OF THE POSITIVE CHARGE CARRIERS. ANOTHER PORTION REPLACES GERMANIUM, UTILIZING THEIR VALENCE ELECTRONS IN BONDING TO THE TELLURIUM ATOM INTRODUCED CONCURRENTLY. SUCH A MECHANISM OF FORMATION OF SOLID SOLUTIONS IS CHARACTERISTIC OF NONSTOICHIOMETRIC SEMICONDUCTIVE COMPOUNDS WITH VACANCIES. GERMANIUM TELLURIDE APPEARS TO BE ONE SUCH COMPOUND. FACILITY: INSTITUTE OF METALLURGY IMENI A. A. BAYKOV, ACADEMY OF SCIENCES USSR.

UNCLASSIFIED

Epidemiology

(5)

USSR

DOBROKHOTOV, B. P., MESHCHERYAKOVA, I. S., DOLOTOVA, I. A., POMANIKAYA, I. A.,
ARSEN'YEV, V. P., LEVACHEVA, Z. A., PANINA, T. V., KATELINA, A. F. and
MYASNIKOV, Yu. A., Institute of Epidemiology, and Microbiology imeni Garaleya,
Academy of Medical Sciences, and Tul'skaya Oblast Sanitary-Epidemiological
Station

"Application of a New Method of Detecting Tularemia Epizootics Under Practical
Conditions"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973,
pp 105-108

The timely detection, study, and prognostication of tularemia epizootics occupy an important place in the work of divisions of especially dangerous infections of sanitary-epidemiological stations inasmuch as this makes it possible to plan and carry out prophylactic measures against this infection properly. However, methods employed at the present time for detecting epizootics in nature are extremely labor-consuming and require a great deal of time both for the collection of field material and for its laboratory examination. It is practically impossible to survey each year the entire territory serviced by the station; therefore it is expedient to conduct a detailed study of circumstances in localities only after an approximate determination of the

1/10

USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

probability of the presence of tularemia epizootics in any of their parts. For this preliminary estimate it was suggested that pellets of birds of prey be examined for the presence of the tularemia microbe antigen [1]. Results of the practical application of this method under the conditions of Tul'skaya Oblast are presented in this report.

On the given territory, located in the Central Russian highlands, foci of tularemia of the meadow-field type [2] are widely distributed, the principal carrier being the ordinary field mouse and the long-time preserver of the causative agent, the tick *D. pictus*. In spite of substantial changes which have taken place in the method of conducting agriculture, these foci continue to exist; although as a result of the mass vaccination of the population, instances of disease among the people are extremely rare [3].

During 1968 to 1971 regular organized zoologic-parasitological work was carried out in the Oblast. A total of 25,832 traps were set up in the fields by workers in the Division of Especially Dangerous Infections during the time indicated; 497 cubic meters of straw were displaced; 84 hectares of the control areas were dug up and as a result 2,199 ordinary field mice were caught.

In the autumn of 1968 a large number of ordinary field mice were observed in the southern rayons of the Oblast: more than 500 per hectare; and in the

2/10

- 5 -

(5)

USSR

DOEROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

north up to 1000-1500 in some places. This led to a concentration of small animals in the stacks (19 to 25% falling into the traps) and to the occurrence among them of tularemia epizootics. In December of 1968 and in January 1969 15 strains of the causative agent were isolated in Kurkinskiy and Shchekinskiy rayons of the Oblast: 5 from the carcasses of the field mice and 10 from the excrement. In the course of the entire year 1969 the number of field mice was low and the next increase was not registered until in the autumn of 1970: on isolated fields (clover) up to 2000, and in Shchekinskiy and Odoyevskiy rayons, up to 5000 per hectare. In 1971 the number of ordinary field mice in the entire Oblast was extremely low. During these years negative results were obtained in bacteriological investigations of small animals; only one culture of the tularemia microbe was isolated in June 1970 from the ticks *D. pictus* collected from cows in Suvorovskiy Rayon. Thus from 1968 to 1971 during an intensive inspection of the Oblast, the presence of tularemia was established by a bacteriological method in only three rayons -- Kurkinskiy, Shchekinskiy, and Suvorovskiy.

During 1969 to 1971, 1490 pellets of birds of prey were collected and examined in the Oblast. Their collection took place primarily in the spring

3/10

USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

(April - May) at the time of three-to-four-day field trips by automobile; a certain number was collected incidentally while other zoological work was being carried out. The pellets were most frequently found near poles of electro-transmission and communications lines, on stacks, and near other structures on the landscape. During the entire time in the collection of pellets approximately 30 man-days were used which comprised an extremely insignificant part of the time expended by the division for inspecting the Oblast. Unfortunately in some of the 18 rayons covered by the collection, an insufficient number of pellets were found, which did not permit the positive determination of an epizootic condition of the rodent population in their territory (See Drawing). The number of pellets collected at any point was directly dependent on the number of ordinary field mice in a given locality: under an increased concentration of these rodents more birds of prey were observed and it was possible to find more pellets.

In the spring collections pellets (which had been preserved since autumn) of ordinary and rough-legged buzzards that winter in the territory predominated (more than 90%). A large portion of the pellets of the lesser falcons had disappeared by this time. In 88 to 96% of the pellets the remains of ordinary

4/10

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USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

field mice were encountered; those of other kinds of mammals (mice of plowed land, field mice, grey hamsters, gophers, weasels, shrews) and birds were rarely encountered. During a selective examination in 1969, the remains of 128 small animals were detected in 85 pellets; in 1970, in 232 pellets, the remains of 356 small animals; and in 1971, the remains of 200 small animals in 140 pellets, giving an average of 1.5 small animal per pellet.

In this manner the 1490 pellets collected contained more small animals than those obtained in the fields during these years for investigation by all other methods. One should also keep in view that by consuming in nature primarily the weakened animals or their carcasses, birds of prey ensure the selection cut of the animal population of precisely those individuals which are desirable for bacteriological investigation.

The presence of an antigen in the pellets positively confirmed the fact of an epizootic condition while through an analysis of the bone remains it was possible to determine the kinds of mammals involved in the epizootic process.

For the purpose of detecting the antigen the antibody neutralization reaction was employed. The material was prepared and the reaction carried out by the method described earlier [1].

5/10

USSR

DOBKROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

The antigen of the tularemia microbe was detected in 173 pellets collected in the territory of 11 rayons of the Oblast. Only those results were considered positive in which there was a sharp delay in hemagglutination which was observed in titrations (from the initial dry weight of the pellet); 1:10 - 1:20 in 73 cases; 1:40 - 1:80 in 67 cases; 1:160 - 1:320 in 23 cases; 1:640 - 1:1280 in 12 cases (See Table).

The number of sites where pellets were found containing an antigen was significantly greater than the number of sites where cultures were formed -- 21 against 4. This made it possible to establish with far greater precision the boundaries of epizootics that had transpired, and it testified to the fact that an epizootic situation with respect to tularemia still exists in a significant part of the territory of Tul'skaya Oblast. Moreover, the presence of epizootics was successfully established for the years having a smaller number of ordinary field mice where it is impossible to detect the causative agent of tularemia by the usually applied methods.

In such torpid epizootics the tularemia microbe antigen is detected only in 1 to 1.5% of the pellets. Cultures of the tularemia microbe from rodents can be isolated only at the time of sufficiently intensive epizootics, and in 6/10

USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

such places more than 20% of the collected pellets contained the tularemia microbe antigen.

In this way, results of an examination of pellets (by the antibody neutralization reaction) collected in early spring in meadow-field foci of tularemia can serve as a precise indication of the existence during the past winter of epizootic tularemia in the territory being surveyed and its magnitude. The revelation of this fact is extremely important in determining the enzooticity of the territory for the purpose of conducting prophylactic measures, the first and foremost being systematic vaccinations. Necessarily in a suspect territory a more thorough collection of material must be achieved for the purpose of isolating the causative agent of tularemia by ordinary bacteriological methods.

Conclusions

1. Examination of pellets of birds of prey collected in springtime in meadow-field foci of tularemia for the presence of the tularemia microbe antigen makes it possible quickly and with a small expenditure of work to establish the past winter's epizootics of this infection and their intensity over extensive areas.

7/10

USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

2. In the course of the years 1969 to 1971, tularemia enzooticity was established by the indicated method in 11 rayons of Tul'skaya Oblast; whereas by the bacteriological method the causative agent was detected in only 3 rayons.

3. With a sufficient amount of research material (100 to 200 pellets from each point) it will be possible to successfully detect each year even torpid tularemia epizootics, given a reduced number of ordinary field mice per focus.

4. The suggested method is completely suitable for use in work of divisions of especially dangerous infections of sanitary-epidemiological stations.

BIBLIOGRAPHY

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2. Myasnikov, Yu. A., Prirodnyye Ochari Tulyaremi Srednerusskov Vozvyshechnosti, ikh Epidemiologicheskive Osobennosti i Profilaktika [Natural Tularemia Sites of Central Russian Highlands, Their Epidemiological Features and Prophylactics], Thesis for Doctor of M., 1963.
4. Olsuf'yev, N. G., Dobrokhotov, B. P. et al., Zh. Mikrobiol., 1971, No 6, p 117.

8/10

- 8 -

USSR

DOEROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

NUMBER OF PELLETS BY YEAR

	1969		1970		1971	
	Total	With Antigen	Total	With Antigen	Total	With Antigen
RAYON						
Kurkinskiy	149	33	24	--	22	1
Yefremovskiy	58	23	40	--	14	--
Kamenskiy	--	--	14	--	40	1
Chernskiy	--	--	8	--	117	--
Teplo-Orarevskiy	27	4	24	--	--	--
Kireyevskiy	--	--	30	--	166	2
Odoyevskiy	--	--	2	--	98	42
Dubenskiy	--	--	--	--	185	55
Leninskiy	--	--	22	--	168	5
Venevskiy	2	--	67	2	--	--
Yasnogorskiy	--	--	23	3	--	--
Zaokskiy	--	--	4	--	46	2
Aleksinskiy	--	--	12	--	36	--
Prochiye	8	--	50	--	32	--
Total	244	60	320	5	932	105

9/10

USSR

DOBROKHOTOV, B. P., et al., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 7, 1973, pp 105-108

Drawing

EXAMINATION OF PELLETS OF BIRDS OF PREY FOR
TULAREMIA MICROBE ANTIGEN CONTENT IN MEADOW-
FIELD FOCI OF TUL'SKAYA OBLAST

1. Sites of Formation of Cultures of Tularemia Microbe From the Smaller Mammals, From Their Excrement and Ixodic Ticks
2. Collection Point of Pellets in 1969
3. Collection Point of Pellets in 1970
4. Collection Point of Pellets in 1971

Crosshatched symbols are points where the tularemia microbe antigen was found in pellets; dotted symbols are points at which more than 5 pellets were collected.

- Key:
1. Yasnogorsk
 2. Venev
 3. Tula
 4. Dubna
 5. Suvorov
 6. Shchekino

7. Kireyevsk
8. Odoyev
9. Teploye
10. Kurkino
11. Yefremov

10/10

- 9 -

USSR

UDC 531.36

CHEKEMTYKH, S. V., and LEVADNYY, Y. G., Moscow

"On Stability of Transverse Oscillations of the Body of Space Vehicle Carriers"

Moscow, Energetika i Transport, No 5, Sep-Oct 71, pp 108-113

Abstract: The disturbed motion of carriers of space vehicles in the yawing plane is investigated with due regard for oscillations of fuel in tanks and the elastic deformation of the body. The case of close frequencies of elastic body oscillations and fuel oscillations in tanks is analyzed. The dynamic stability limits of the closed system object-corrector in space are discussed by reference to diagrams plotted in dimensionless parameters on the basis of which a qualitative analysis of interference on stability of the carrier body elasticity and the fuel mobility in tanks is presented. By unfavorable combinations of rocket parameters in the closed system object-stability control, a phase instability is possible. The effect of body elasticity on rocket stability in the frequency range of fuel oscillations in tanks has to be considered in the analysis of phase characteristic requirements for the stability control based on stability conditions of the closed system on these frequencies. Four illustr., 21 formulas, two biblio. refs.

1/1

USSR

UDC 621.382.002 (088.8)

KOCHKAREV, G.V., KRACHKOVSKIY, O.I., LEYBOVICH, A.SH., CHARNYY, YU.S.,
PETRAKOVSKIY, YA.SH., SIDORENKO, L.D., LEVAKOV, V.P., GLATCHEV, V.P.,
RATNEK, YU.A.

"Classifier Of Semiconductor Devices"

USSR Author's Certificate No 296180, filed 14 July 1969, published 18 May 1971
(from RZh--Elektronika i yeye primeneniye, No 3, March 1972, Abstract No 39557)

Translation: The classifier of semiconductor devices (principally transistors) contains a unit [uzel] for connection of a device to the measuring equipment, the measuring equipment, logical equipment, mechanism for marking the polarity, and a unit for allocation of the measured devices into a container; it has a rotating tube connected with an electric motor. With the object of increasing the speed of operation and the efficiency of the classifier, the unit for connection, made in the form of a revolving reversible disk, supporting two blocks [kolodka] for the devices, diametrically located and connected by a flexible braid [zhgut] with the measuring device, and two withdrawing devices, mounted on the axis of the blocks, is partially arranged inside a guiding hopper, connected with the rotating tube of the unit for allocation, and under the disk of the unit for connection, in a groove of the lateral surface of the hopper, the mechanism for marking the polarity is located.

1/1

1/2 011 UNCLASSIFIED
TITLE--ON THE STRUCTURE OF THE CHARACTER -U-
AUTHOR--LEVANDOVSKIY, N.G.
COUNTRY OF INFO--USSR
SOURCE--VOPROSY PSIKHOLOGII, 1970, NR 3, PP 51-61
DATE PUBLISHED-----70

PROCESSING DATE--23OCT70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES
TOPIC TAGS--PERSONALITY, PSYCHOLOGIC TEST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3001/0804

STEP NO--UR/0402/70/000/003/0051/0061

CIRC ACCESSION NO--AP0126487

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--2300770

2/2 011

CIRC ACCESSION NO--AP0126487

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. AN ANALYSIS OF THEORETICAL INVESTIGATIONS OF THE STRUCTURE OF THE CHARACTER IS GIVEN. AN ATTEMPT IS MADE TO COMPARE THE RESULTS OF THESE THEORETICAL INVESTIGATIONS WITH DATA OBTAINED IN THE EXPERIMENT. THE EXPERIMENT WAS CONDUCTED ON 29 SCHOOLCHILDREN OF 9-10 GRADE. 40 PERSONALITY TRAITS DIVIDED INTO 5 GROUPS: TEMPERAMENT TRAITS, INTERCOURSE TRAITS, WORKING QUALITIES, CHARACTER TRAITS AND TRAITS CHARACTERIZING PERSONALITY AS A WHOLE WERE STUDIED. THE RATINGS AND SELF RATINGS WERE USED. THE TRAITS WERE EVALUATED BY 6 POINT SCALE DEPENDING UPON THE DEGREE OF THEIR EXPRESSION: STRONGLY, MIDDLE OR LITTLE FOR BOTH POSITIVE TRAITS AND THEIR POLAR ASPECTS. DATA OBTAINED WERE FACTOR ANALYZED. THE FINDINGS OF THE EXPERIMENT REVEALED SOME PECULIARITIES OF THE RELATIONSHIP BETWEEN THE TEMPERAMENT AND THE CHARACTER AND PERMITTED THE AUTHOR TO GIVE A MORE PRECISE DEFINITION TO THE GENERAL THEORETICAL SCHEME.

FACILITY: PEDAGOGICHESKIY INSTITUT IMENI A. I. GERTSENA, LENINGRAD.

UNCLASSIFIED

LEVANOV, Ye. I.

AMU/ 1A-760 15 MAR 73 11
1000 12

pulsating character with an irregular oscillating frequency of 5-10 Hz. Average deepening rates in the pulsating period and in steady-state evaporation are tabulated for various materials. This qualitative characteristic was observed in all experiments, with quartz as well as with other optical materials. The only variation was in the pulsation amplitude and the steady-state regime discharge time. Two main processes, namely gaseous phase desorption and emission shielding lead to the pulsating nature of cavity termination. The pulsation damping of LK-5, K-9 and other glass types occurred more rapidly than with quartz glass. A steady self-adjusting evaporation regime was observed through to the complete piercing of a 60 mm thick quartz specimen, and with spitting of other materials. The pulsating nature of the process up to the self-adjusting regime is apparently common to all substances. The damage products of these substances also exhibit absorptivity at the active irradiation frequency. The authors conclude by giving a system of approximate equations for the dynamic low-temperature evaporation of dielectrics, taking vapor absorption into account.

Volusevich, P. P., and Ye. I. Levanov.
On self-similar motions of a two-
temperature plasma. *Ukr. Sbornik.*
Tsiplio-1 massopereva, v. 8. Minsk,
1972, 29-35. (RZhMekh, 9/72, no.
98119) (Translation)

A self-similar solution is analyzed to the problem of dispersion of an ionized gas in vacuum, occurring from a laser-target interaction. The case is considered for a powerful laser source interacting with a plane solid surface. The plasma is treated as a two-

USSR

UDC 535.33

VOLOSEVICH, P. P., LEVANOV, YE. I.

"Effect of Heat Conductivity on the Propagation of Laser Radiation Absorption Waves"

Moscow, Doklady Akademii Nauk SSSR, Vol 194, No 1, 1970, pp 49-52

Abstract: A laser beam incident on some material causes vaporization of the material, and the ionization of the resulting vapor by the beam and consequent absorption of the radiation by the ionized vapor may lead to high temperatures of a small portion of the gas. This zone absorbs practically all the radiation of the beam and the vaporization stops, giving rise to the absorption glow of the laser radiation. Then, the temperature and density values at which the effect of the electron heat conductivity becomes significant are reached. Starting with a system of five gas dynamics equations in the unidimensional plane approximation, the gas being considered ideal, the authors determine two modes of the absorption glow radiation. The electron heat conductivity is computed by the method described in an earlier paper (by N. N. Malitskin, in Teoriya i yspokhi 1/2

- 56 -

USSR

VOLOSEVICH, P. P., et al, Doklady Akademii Nauk SSSR, Vol 191, No 1, 1970, pp 19-52

temperatur -- High Temperature Thermal Physics -- Vol 6, No 5, 1968, p 501). Analysis and the numerical computations for the situation in which the electron heat conductivity is identically zero showed that, depending on the power of the radiated beam, the initial temperature formation may be propagated in the medium during glow radiation or may remain fixed at a particular portion of the gas. The authors also investigate the thermal conducting structure of the absorption wave shock detonation without taking the heat radiation into account. They conclude by expressing their gratitude to A. A. Samarskiy, S. P. Kurdyumov, and Yu. P. Popov for their comments and to L. N. Busurina for making the computations.

2/2

1/2 021 UNCLASSIFIED PROCESSING DATE--0900170
TITLE--EQUILIBRIUM REACTIONS OF DIBROMOETHANE -U-
AUTHOR--(OS)-LEVANOVA, S.V., RUZHNOV, A.M., SEDOV, S.M., STARKOV, V.YA.,
MANZHOS, V.N.
COUNTRY OF INFO--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13111, 62-5
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHEMICAL REACTION RATE, BROMINATED ORGANIC COMPOUND, ETHANE,
ISOMERIZATION, THERMODYNAMIC FUNCTION, SPECTRUM, HYDROGENATION,
BROMINATION, ENTROPY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY RELL/FRAML--1992/1922 STEP NO--0R/0153/10/0137/0017/0002/0005
CIRC ACCESSION NO--A10112394
UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--090CT70

CIRC ACCESSION NO--AF0112894

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATE CONST. IN SUBR TIMES 10 PRIME3) FOR THE DEHYDROGENATION OF MECHBR SUB2 (I) IS 2.01 AT 413DEGREES, 5.13 AT 157DEGREES, 13.8 AT 176DEGREES, AND 65.0 AT 1210DEGREES. SIMILAR DATA FOR BRCH SUB2 CH SUB2 OR (II) ARE 28.6 AT 131DEGREES, 52.1 AT 140DEGREES, 106.1 AT 156DEGREES, AND 209 AT 174DEGREES. IN STUDIES OF THE ISOMERIZATION OF II TO I, THE PERCENT I IN THE EQUIL. MIXT. (INITIALLY PURE II) IS 1.94 AT 176DEGREES, 2.30 AT 198DEGREES, 2.50 AT 211DEGREES, 2.74 AT 225DEGREES, AND 3.05 AT 245DEGREES. THERMODYNAMIC FUNCTIONS OF II ARE CALCD. FROM BOND LENGTHS AND SPECTRAL DATA AT 25-727DEGREES. VALUES AT 127DEGREES AND 227DEGREES ARE S SUBT, 84.77 AND 90.10 CAL--(DEGREES MOLE), C SUBT, 22.49 AND 25.31 CAL--(DEGREES MOLE), H SUBT DEGREES H SUBO DEGREES) T, 15.18 AND 15.79 KCAL-MOLE, AND MINUS (2 SUBT DEGREES, H SUBT DEGREES) T, 69.59 AND 73.51 CAL-MOLE. THE REACTION RATE DATA ARE USED TO CALC. THERMODYNAMIC FUNCTIONS FOR THE DEHYDROGENATION AND ISOMERIZATION REACTIONS, AND THE CALCD. ENTROPY CHANGES AGREE WELL WITH LITERATURE DATA. FACILITY: KUIBYSHEV. POLITEKH. INST. IN. KUIBYSHEVA, KUIBYSHEV, USSR.

UNCLASSIFIED

UDC 621.762.001(088.6)

USSR

YEVGRAPOV, A. V., KOESAKOV, V. V., SKALDIN, B. A., ALEKSEYEV, G. I., KOSELOVA, G. N., and LEVANT, B. G.

"Instrument for Determining Concentration of Magnetic Powder in Suspension"

USSR Author's Certificate No 265554, Cl. 42 1, 13/04, (GOL n), filed 8 Aug 68, published 26 Jun 70 (from RZh-Metallurgiya, No 3, Mar 71, Abstract No 3G351P by A. Epik)

Translation: A block diagram is presented and a description given of the working principle and operation of an instrument for determining the magnetic powder content of a suspension. The instrument contains a power unit, generator, buffer amplifier, sensing element, detector, d-c amplifier, and indicator. To increase measurement accuracy, assure linearity of readings, and simplify the scheme of the instrument, it is supplied with a magnetizer in the form of two coaxially situated annular permanent magnets. Two ferroprobe half-cells, connected via the d-c amplifier to the indicator, are installed in the magnet gap perpendicular to the axis of the magnets, with a vessel containing the medium under study mounted in the annular gap of the upper magnet. Two illustrations.

1/1

Acc. Nr.: AP0046496

Ref. Code: U.R.009.4

USSR

UDC 621.372.6.01

GESTER, P. I., LEVINT, B. G., Engineers, and PRIGON, E. A., Candidate of Technical Sciences, All-Union Scientific Research Institute for Chemical Fiber Processing.

"Low-Frequency Neutralizer of Static Electricity Charges"

Moscow, Freyshlennaya Energetika (Industrial Power Engineering), No 1, 1970, pp 28-31.

Translation: Descriptions are given of the construction, electric circuit and operating principle of a new commercial-type low-frequency neutralizer. The question of selection of optimum discharger design parameters is examined, and a method is given for calculating the required working supply voltage. (3 illustrations, 10 biblio. ref.)

Reel/Frame
19781749

USSR

UDC 627.81

KOROZHENKOV, A. A., LEVANT, T. A.

"Composition and Basic Purpose of the Reservoir Cadasters Published Abroad by Comparison with the USSR Reservoir Cadaster"

Tr. koordinats. soveshchaniy po gidrotekhn. (Works of Coordinating Meetings on Hydroengineering), No 59, 1970, pp 179-181 (from RZh-Elektrotekhnika i Energetika, No 2, Feb 71, Abstract No 2 D54)

Translation: In the USA, information on reservoirs and controlled lakes in the form of a cadaster was published for the first time in 1948 (in the USSR, in 1967). The last publication of a cadaster pertains to 1966 and gives information on 1,562 reservoirs constructed and being constructed in the USA on 1 January 1963 with a volume (V) > 7 million m^3 . Here, the reservoirs are characterized by 12 indexes: the name of the reservoir, its placement, the watershed area, the water plane area, the total volume, the dead storage, the usable storage, the ratio of usable storage to mean annual runoff, the purpose of the reservoir, the date of completion of construction of the dam, the name of the owner or controlling agent, published information about changes in the reservoir storage. These data have basically a statistical reference nature and are gathered in one table. In the USSR cadaster, the technical-economic characteristics of the reservoirs are presented in a table and include 110-200 indexes. The bibliography has 7 entries.

1/1

015
TITLE--IMPROVING TRANSFORMER STEEL PROPERTIES
VACUUM -U-
AUTHOR--(02)--OZHIGANOV, V.S., LEVANTO, M.A.
COUNTRY OF INFO--USSR
SOURCE--STAL' 1970: 30(1) 34-5
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--TRANSFORMER STEEL, STEEL PRODUCTION, METALLURGIC STEEL, VACUUM
TECHNIQUE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1983/0295
CIRC ACCESSION NO--AP0053280
UNCLASSIFIED
PROCESSING DATE--13 SEPT 70
DURING SLAG TREATMENT IN

2/2 015 UNCLASSIFIED PROCESSING DATE--18SEP70
CIRC ACCESSION NO--AP0053280
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESIDUAL S CONTENT CAN BE LOWERED
TO 0.002PERCENT BY TAPPING WHITE FINISHING SLAG AND METAL UP A HEAT
TOGETHER IN A BULL LADLE AND REPOURING THEM IN A TEEMING LADLE, OR BY
TAPPING 90-5PERCENT OF REDUCING SLAG AND 10-15 METAL IN A 1ST TEEMING
LADLE, AND THE REST OF THE METAL IN THE 2ND ONE. THE 1ST LADLE IS
PLACED IN A VACUUM CHAMBER WHICH IS THEN EVACUATED TO 1-3 TORR, AND THE
CONTENTS OF THE 2ND LADLE IS TEEMED IN THE 1ST WITHIN 7-10 MIN. THIS
PRACTICE LOWERS THE NONMETALLIC AND GAS CONTENT AND INCREASES THE
PROPORTION OF LOW WATT LOSS SHEETS. THE VACUUM TREATMENT IS MORE
EFFECTIVE THAN THE REPOURING.

UNCLASSIFIED

1/2 024 UNCLASSIFIED
TITLE—STABILIZATION OF POLYCARBONATES -U-

PROCESSING DATE--30OCT70

AUTHOR--(05)--KOVARSKAYA, B.M., KOTRELEV, V.N., KIRPICHNIKOV, P.A.,
LEVANTOVSKAYA, I.I., ITINSKAYA, G.P.
COUNTRY OF INFO--USSR

SOURCE--USSR 264,689
REFERENCE--OTKRYTIYA, IZJBRET., PROM. OBRATSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--03MAR70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--POLYCARBONATE, CHEMICAL STABILIZER, LOW TEMPERATURE EFFECT,
ORGANIC PHOSPHORUS COMPOUND, ARYL PHOSPHINITE, CHEMICAL PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/1468

STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0128867

UNCLASSIFIED

2/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AA0128867
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. POLYCARBONATES ARE STABILIZED AND
TREATED AT LOW TEMPS. USING 0.1-1 WT. PERCENT POLYPHOSPHINITE STABILIZERS
(I, N EQUALS 5-10).

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--THERMOOXIDATIVE BREAKDOWN AND STABILIZATION OF POLYESTER
PLASTICIZERS -U-
AUTHOR--(05)-LEVANTOVSKAYA, I.I., YAZVIKOVA, M.P., BARSHTEYN, R.S.,
GORBUNOVA, V.G., ISAYEVA, Z.S.
COUNTRY OF INFO--USSR

SOURCE--PLAST. MASSY 1970, (2), 52-4

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--THERMAL DEGRADATION, OXIDATIVE DEGRADATION, PLASTICIZER,
POLYESTER RESIN, GLYCOL, THERMAL STABILITY, CHEMICAL STABILIZER,
PHOSPHORUS COMPOUND, ORGANIC SULFUR COMPOUND, PHENOL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1997/0601

STEP NO--UR/0191/70/DDO/002/0052/0054

CIRC ACCESSION NO--AP0119599

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--23OCT70

2/2 020

CIRC ACCESSION NO--AP0119589

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE OXIDATIVE THERMAL DEGRADATION OF POLYESTER PLASTICIZERS (I), PREPD. FROM ADIPIC ACID (II) AND ALKYLENE GLYCOLS (E.G., HOCH SUB2 CH SUB2 OH, HOCH SUB2 (CH SUB2) SUB3 CH SUB2 OH, HOCH SUB2 (CH SUB2) SUB4 CH SUB2 OH), II AND ISOGLYCOLS (E.G., HOCH SUB2 CH(OH)ME, HOCH SUB2 CH SUB2 CH(OH)ME, AND HOCH SUB2 GME SUB2 CH SUB2 OH), II AND OXYALKYLENE GLYCOLS (III) (E.G., OICH SUB2 CH SUB2 OH) SUB2, HOIC SUB2 H SUB4 O) SUB3 H, AND POLY(ETHYLENE GLYCOL) OF MOL. WT. 400) WAS STUDIED AT 120-200DEGREES. I PREPD. FROM II AND III WERE THE MOST SUSCEPTIBLE TO OXIDN. THE THERMAL STABILITY OF I WAS INVERSELY PROPORTIONAL TO THE NO. OF CH SUB2 GROUPS IN THE GLYCOL. THE MOST EFFECTIVE STABILIZERS OF I WERE POLYGARD, POLYPHOSPHINITIC, AND ESP. 2,2 PRIME,THIOBIS(4,METHYL,6,TERT,BUTYLPHENOL).

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133695
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE PHASES BETWEEN WHICH CLOSE TRANSITIONS TAKE PLACE ARE CONSIDERED ON A UNIFIED BASIS, REGARDING THEM AS THE RESULT OF DISTORTIONS OF ONE MORE SYMMETRICAL PHASE. THIS 'PROTOPHASE' NEED NOT NECESSARILY BE OBSERVED IN THE EXPERIMENT. THE DESCRIPTION OF THE DYNAMIC ANOMALIES, OBTAINED BY SUCH AN APPROACH, IS MORE COMPLETE IN THE SENSE THAT A SMALLER NUMBER OF COMPONENTS IS NEEDED THAN IN THE CORRESPONDING DESCRIPTION BASED ON A SEPARATE ANALYSIS OF PHASE TRANSITIONS IN LANDAU'S THEORY. IT TURNS OUT THAT THE PHASE DIAGRAM HAS A CHARACTERISTIC SINGULARITY, IN THAT IT HAS A POINT AT WHICH FOUR DIFFERENT PHASES ARE IN CONTACT. FACILITY: USSR ACAD. SCIS.

UNCLASSIFIED

1/2 062 UNCLASSIFIED PROCESSING DATE--10 SEP 70
TITLE--HIGH TEMPERATURE GRAPHITE RADIATOR FOR THE INFRARED SPECTRAL REGION
-U-
AUTHOR--(02)-BAKHIR, L.P., LEVASHENKO, G.I.
COUNTRY OF INFO--USSR
SOURCE--ZHURNAL PRIKLAADNOI SPEKTROSKOPII, VOL. 12, JAN. 1970, PP 173-176
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--INERT GAS, GAS PRESSURE, IR SPECTRUM, GRAPHITE, HIGH
TEMPERATURE EFFECT, RADIATION INTENSITY, HEAT RADIATION, TEMPERATURE
DEPENDENCE, FLAME TEMPERATURE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY FILE/FNAME--1979/1612 STEP NO--UR/0368/70/012/000/0173/0176
CIRC ACCESSION NO--AP0047934
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--13SEP70

2/2 062

CIRC ACCESSION NO--AP0047934

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF A GRAPHITE RADIATOR WITH A RADIATIVE CAPACITY OF 0.99 OPERATING AT TEMPERATURES UP TO 3200 DEG K IN THE SPECTRAL REGION FROM 0.5 TO 15 MU. THE RADIATOR IS INTENDED FOR MEASUREMENTS OF RADIATIVE CAPACITIES AND FLAME TEMPERATURES AND HAS THE FORM OF A HOLLOW GRAPHITE CYLINDER WITH A LONGITUDINAL SLOT. THE RADIATING ELEMENT USED IN THE RADIATOR IS HEATED BY A DIRECT CURRENT IN A COMPRESSED INERT GAS. IT IS FOUND THAT THE LIFE TIME OF THE SYSTEM CAN BE SUBSTANTIALLY EXTENDED BY INCREASING THE PRESSURE OF THE INERT GAS. THE TEMPERATURE DEPENDENCE OF THE LIFE TIME OF THE RADIATING ELEMENT OF THE RADIATOR IS DETERMINED AT CONSTANT PRESSURE OF THE INERT GAS.

UNCLASSIFIED

USSR

UDC 616.9-078.576.8.095.57

TIMAKOV, V. D., Academician, and LEYASHEV, V. S., Professor, Moscow

"Altered Forms of Microorganisms and Human Pathology"

Moscow, Sovetskaya Meditsina, No 4, 1972, pp 3-6

Abstract: Recent findings on phenotypically and genotypically altered forms of bacteria significant to human pathology are discussed. Morphologically similar L-form bacteria, all polymorphic with spherical constituents, have been obtained from most species of bacteria. Their pathogenic properties differ from those of the initial species, as do their metabolic processes. Genetically altered L-forms are stable, while phenotypically altered L-forms can revert back to their initial form if the causative environmental factor is removed. They have been obtained from humans with such diseases as rheumatoid arthritis, meningitis, septic endocarditis, and chronic diseases of the urogenital tract. They are difficult to identify, and their etiological role is unclear, though some investigators attribute recidivism of some infectious diseases to these forms. They may develop under the effect of human defense mechanisms against the initial pathogens. Atypical bacterial forms are produced with the use of antibiotics and sulfamylaridau. Morphologically similar to parent cells, they differ only in biological properties.

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- 9 -

USSR

TIMAKOV, V. D., and LEVASHEV, V. S., Sovetskaya Meditsina, No 4, 1972, pp 3-6

Classical identification methods must be revised, since they are inapplicable to atypical bacteria. Their changes are genetic, resulting primarily from ribosome mutations. Another altered form is the mycoplasma, which has biological properties similar to those of L-forms, and has been studied thoroughly in bird and animal pathology. Its role in human primary atypical pneumonia has been substantiated. Further study on the properties and human effects of these altered forms is necessary.

2/2

USSR

UDC 576.858.9.095.51

AVRAMOVA, R. S. and LEVASHEV, V. S., Second Moscow Medical Institute imeni Pirogov

"Transduction by the C-Mutant of P₂₂ Bacteriophage"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 8, 1971, pp 77-80

Abstract: A comparison was made of transduction by the C-mutant of P₂₂ phage, obtained after reversion of the L form of *S. typhimurium* strain 680, with that by the wild type of the same phage. *S. typhimurium*, strain LT₂, was used as the donor, while auxotrophic strains of *S. typhimurium* leu 110, trp 29, Hfr B₃, his 23, and gal 50 served as recipients. The Mutation of P₂₂ phage was manifested by partial impairment of its capacity to lysogenize sensitive bacteria, but there was no loss of its transduction activity. The C-mutant was able to transduce various genetic determinants, i.e., retain the nonspecific character of transduction, but the frequency of the latter was one to three orders lower than that by the wild type of phage P₂₂.

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1/2 025 UNCLASSIFIED PROCESSING DATA--7/19/70
TITLE--EFFECT OF INHIBITORS OF NUCLEIC ACID AND PROTEIN SYNTHESIS AND CELL
DIVISION OF THE PRIMARY IMMUNOLOGICAL RESPONSE -U-
AUTHOR-(04)-UTESHEV, B.S., PINEGIN, B.V., BABICHEV, V.A., LEVASHEV, V.S.
COUNTRY OF INFO--USSR
SOURCE--VESTN. AKAD. MED. NAUK SSSR 1970, 25(1), 62-70
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--NUCLEIC ACID, PROTEIN, CELL PHYSIOLOGY, IMMUNOLOGY,
BIOSYNTHESIS, CHLORAMPHENICOL, ANTIBODY, SPLEEN, MITOSIS
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/0362 STEP NO--UR/0248/70/025/001/0062/0070
CIRC ACCESSION NO--AP012/943
UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0127943

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EFFECT OF INHIBITORS OF DNA BIOSYNTHESIS, E.G., 5-FLUOROURACIL (I), AMEYHOPTERIN (II) OR 9-AZAGUANINE, OF RNA BIOSYNTHESIS, E.G., AURANTHIN OR ETHIONINE, OF PROTEIN BIOSYNTHESIS, E.G., CHLORAMPHENICOL (III), AND OF CELL DIVISION, E.G., COLCHICINE (IV) ON THE PRIMARY IMMUNE RESPONSE WAS DETD. ALL INHIBITORS OF DNA OR RNA BIOSYNTHESIS WERE STRONG IMMUNODEPRESSANTS; THE MAX. EFFECT OCCURRED AFTER TREATMENT DURING EARLY STAGES OF IMMUNOGENESIS. ANTIBODY FORMING CELLS WERE RELATIVELY STABLE TOWARD III. IV CAUSED A MARKED DROP IN ANTIBODY PRODUCING CELLS IN THE SPLEEN; HOWEVER, WITH COMPLETE INHIBITION OF MITOSIS, ANTIBODY BIOSYNTHESIS STILL OCCURRED. THUS, ANTIBODY PRODUCING CELLS CAN EVIDENTLY FORM BY TRANSFORMATION OF NONPRODUCING CELLS AS WELL AS BY MITOSIS.
FACILITY: II MOSK. MED. INST. IM. PIROGOVA, MOSCOW, USSR.

UNCLASSIFIED

MELIKHOV, V. S. and LEVASHKIN, G. I.

"Broad-Band Amplifier With a Complex Feedback Connection"

/Toms. in-t radioelektron. i elektron. tekhn./ Avt sv. SSSR
(Tomsk Radio and Electronic Engineering Institute, Author's Certificate USSR) Class 21a⁴, 18/08, (H 03 f 1/42), No. 275150, Application 5.07.68, Publication 29.09.70 (from RZh-Radiotekhnika, No. 3, March 21, Abstract No. 3D174P)

Translation: A broad-band amplifier with complex feedback containing stages with local frequency-dependent negative feedback in the transistor emitter circuits and an external positive feedback circuit is proposed. To improve the efficiency of frequency distortion correction and to simplify the circuit and tuning of the amplifier, the external frequency-correcting positive feedback circuit, consisting of a series-connected capacitance and inductance shunted by a resistor, is connected between the transistor emitter circuits.

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- 9 -

USSR

UDC 621.372.852.1

LEVASHKIN, V. I. and TARABRIN, YU. K.

"Waveguide Separation Filter Based on a Slit Type Directed Coupler"

Elektron. tekhnika. Nauch.-tekhn. sb. Elektron. SVCh (Electronics Technology. Scientific-Technical Collection of Articles. Super-High Frequency Electronics), 1972, vyp.5, pp 121-123 (from RZh-Radiotekhnika, No 11, Nov 72, Abstract No 11 B133)

Translation: A waveguide separation filter is described which is simple to produce, compact, and easily retuned within a broad range with respect to the random ordering of the frequencies of the input signals. Losses in each of the frequency channels do not exceed 0.2 db during 25-30 db decoupling between channels. This type of filter can be used for measuring the spurious radiation of super-high frequency units. Original article: one illustration and two bibliographic entries. Resume.

1/1

- 152 -

Logic and Game Theory

USSR

UDC 51:621.391

AGIBALOV, G. P. and LEVASHNIKOV, A. A.

"Statistical Evaluations of the Complexity of Boolean Functions Generating Normal Periodic Sequences"

Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-te (Transactions of the Siberian Technical-Physics Institute at Tomsk University), No 51, 1970, pp 6-8 (from Referativnyy Zhurnal -- Matematika, No 6, June 71, Abstract No 6V405, by G. Blokhina)

Translation: The authors examine Boolean functions $g(x_1, x_2, \dots, x_{n-1})$ for which the sequence $\delta_1, \delta_2, \dots, \delta_n, \dots, \delta_j, \delta_{j+1}, \dots, \delta_{j+n-1}, \delta_{j+n}, \dots$, calculable as the solution of the recursive equations $\delta_{j+n} = \delta_j + g(\delta_{j+1}, \dots, \delta_{j+n-1})$, $j = 1, 2, \dots$,

for given initial conditions $\delta_1, \delta_2, \dots, \delta_n$ is a normal periodic sequence.

The article presents the results of a statistical experiment aimed at obtaining quantitative valuations of the complexity of the function g characterized

1/2

USSR

AGIBALOV, G. P. and LEVA HNIKOV, A. A., Tr. Sib. fiz.-tekhn. in-ta pri Tomsk. un-te, No 51, 1970, pp 6-8.

by the weight W which is expressed as the number of sets for which the function g is equal to 1 and also as the number of conjunctions K and the number of letters L that can be encountered in some nonredundant disjunctive normal form of the function g .

2/2

- 23 -

USSR

UDC 51:621.391

AGIBALOV, G. P., LEVASHIKOV, A. A.

"Statistical Estimates of Complexity of Boolean Functions, Generating Normal Periodic Sequences"

Tr. Sib. Fiz.-tekhn. In-ta pri Tomsk. Un-te [Works of Siberian Physics and Technology Institute at Tomsk University], No 51, 1970, pp 6-8, (Translated from Referativnyy Zhurnal, Kibernetika, No 6, 1971, Abstract No 6 V405 by G. Blokhina).

Translation: Boolean functions $g(x_1, x_2, \dots, x_{n-1})$ are studied, for which the sequence $\delta_1, \delta_2, \dots, \delta_n, \dots, \delta_j, \delta_{j+1}, \dots, \delta_{j+n-1}, \delta_{j+n}, \dots$, can be calculated as the solution of the recurrent equations $\delta_{j+n} = \delta_j + g(\delta_{j+1}, \dots, \delta_{j+n-1})$, $j = 1, 2, \dots$, with fixed initial conditions $\delta_1, \delta_2, \dots, \delta_n$, and is a normal periodic sequence. This article presents the results of a statistical experiment designed to produce quantitative estimates of the complexity of function g , characterized by weight W , expressed as the number of sets in which function g is equal to 1, as well as the number of conjunctions K and the number of letters L which may be encountered in a certain nonredundant disjunctive normal form of function g .

172 020 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--MODES OF INTERACTION BETWEEN COMPETITIVE INHIBITORS AND THE ALPHA
CHYMOTRYPSIN ACTIVE CENTER --U--
AUTHOR--(03)--BEREZIN, I.V., LEVASHOV, A.V., MARTINEK, K.
COUNTRY OF INFO--USSR
SOURCE--FEBS (FED. EUR. BIOCHEM. SOC.) LETT. 1970, 7(1), 20-2, ENG.
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--TRYPSIN, INHIBITION, SPECTROPHOTOMETRY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/0930 STEP NO--NE/C000/70/00T/001/0020/0022
CIRC ACCESSION NO--AP0126589

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0126589

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FORMATION OF VARIOUS COMPLEXES WITH ALPHA CHYMOTRYPSIN (1) WAS STUDIED BY MEASURING THE COMPETITION BETWEEN INHIBITORS AND PROFLAVINE FOR A BINDING SITE ON THE ENZYME. THE EQUIL. STATE IN THE SYSTEM I DYE COMPETITIVE INHIBITOR WAS DETD. SPECTROPHOTOMETRICALLY. IT WAS CONCLUDED THAT, IN ENZYME INHIBITOR COMPLEX FORMATION, THE POLAR GROUPS OF THE ACTIVE CENTER ARE NOT TRANSFERRED INTO A NONPOLAR ENVIRONMENT. FACILITY: LAB. BIOORG. CHEM., M. V. LOMONOSOV STATE UNIV., MOSCOW, USSR.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--ON THE MODES OF INTERACTION BETWEEN COMPETITIVE INHIBITORS AND THE
ALPHA CHYMOTRYPSIN ACTIVE CENTRE -U-
AUTHOR-(03)-MARTINEK, K., LEVASHOV, A.Y., BEREZIN, I.V.
COUNTRY OF INFO--USSR
SOURCE--MOLEKULYARNAYS BIOLOGIYA, 1970, VOL 4, NR 3, PP 339-347
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ENZYME, INHIBITION, THERMODYNAMICS, TRYPSIN, BENZENE
DERIVATIVE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0154 STEP NO--UR/0463/70/004/003/0339/0347
CIRC ACCESSION NO--AP0120854
UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120854

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TO STUDY THE MECHANISM OF THE INHIBITOR ENZYME COMPLEX FORMATION A COMPARISON IS MADE OF THE THERMODYNAMICS OF THIS PROCESS (ΔF_{SUBI}) WITH THE FREE ENERGY OF THE MODEL PROCESS OF THE INHIBITOR EXTRACTION (ΔF_{SUBEXT}) FROM WATER L OCTANOL. THE VALUES OF ASSOCIATION CONSTANTS OF COMPETITIVE INHIBITORS (BENZENE DERIVATIVES) WITH ALPHA CHYNOTRYPSIN WERE MEASURED SPECTROPHOTOMETRICALLY BY MEANS OF THE ANALYSIS OF COMPETITIVE REVERSIBLE BINDING OF INHIBITORS AND PROFLAVIN DYE WITH THE ACTIVE CENTRE. THE CORRELATION BETWEEN THE FREE ENERGY VALUES ΔF_{SUBI} AND ΔF_{SUBEXT} INDICATE THE PREDOMINANT ROLE OF THE HYDROPHOBIC INTERACTION IN THE BINDING OF THE STUDIED INHIBITORS AND THE ENZYME. ON THE OTHER HAND, THE THERMODYNAMICS ANALYSIS SHOWED THAT IN THE COURSE OF FORMATION OF THE ENZYME INHIBITOR COMPLEX POLAR (UNCHARGED) SUBSTITUENTS IN THE BENZENE MOLECULE ARE NOT TRANSFERRED TO THE APOLAR MEDIUM OF THE ACTIVE CENTRE.

FACILITY: LABORATORY OF BIOORGANIC CHEMISTRY,
STATE UNIVERSITY, USSR, MOSCOW.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--KINETICS AND MECHANISM OF THE REACTION OF SCHIFF BASES WITH
DIETHYLPHOSPHITE -U-
AUTHOR-(03)-KOZLOV, N.S., PAK, V.D., LEVASHOV, I.N.
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK BELORUSS. SSR 1970, 14(3), 243-6
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--REACTION KINETICS, CHEMICAL REACTION MECHANISM, SCHIFF BASE,
ALKYL PHOSPHITE, CATALYST
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/1104 STEP NO--UR/0250/70/014/003/0243/0246
CIRC ACCESSION NO--A10124759
UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AT0124759
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS AND MECHANISM OF THE
REACTION OF SCHIFF BASES WITH (ETO)SUB3 P TO GIVE RC SUB6 H SUB4
CH(P(O)(OET)SUB2)NHC SUB6 H SUB4 R PRIME1 WAS STUDIED. THE REACTION WAS
FIRST ORDER WITH RESPECT TO BOTH REACTANTS. A REACTION MECHANISM WAS
PROPOSED. THE INFLUENCE OF CONCD. HCL AS A REACTION CATALYST WAS
STUDIED: RESULTS SUGGESTED THAT THE CHEM. REACTIVITY OF SCHIFF BASES IS
DETD. BY THEIR CONFIGURATION. FACILITY: INST. #12.-ORG. KHIM.,
MINSK, USSR.

UNCLASSIFIED

USSR

UDC: 621.382.2

KOZLOV, N. P., LEVASHOV, I. P., MURYGIN, V. I., POPOV, L. V., SONDAYEVSKIY, I. A. and STAFEEV, V. I., Moscow Institute of Electronic Technology
"Some Research in S-Diode Neuristors"

Leningrad, Fizika i tekhnika poluprovodnikov, vol 6, No 6, 1972,
pp 1054-1061

Abstract: The neuristors investigated in this article have S-shaped volt-ampere characteristics and are of two types: first, with common anti-cutoff contact and a sectioned p-n junction; second, with common p-n junction and sectioned anti-cutoff contact. The schematics of both types are given. If the diode structures in the circuit are sufficiently far from each other, the switching delay time may be much less than the switching time of an individual element, and the interelement switching time can be neglected. It is shown that when the delay time between the switching of neighboring elements is much greater than the switching time, the dependence of the breakdown voltage on the parameters of the material has only a slight effect on the coupling between the active elements in the neuristor line. The second part of this paper describes experiments performed to verify the theoretical results of the first part. These experiments used neuristors of p-type germanium compensated by gold.

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USSR UDC 619:616.9-022.6+636.1+636.2+636.4+636.52/.58

LEVASHOV, L. A.

"Complex Immunization of Swine Against Hog Cholera, Paratyphoid and Erysipelas"

V sb. Sb. nauchn. rabot. Sib. n.-i. vet. in-t. (Siberian Scientific Research Veterinary Institute -- Collection of Scientific Works), No 17, 1970, pp 162-164 (from RZh-Zhivotnovodstvo i Veterinariya, No 2, Feb 71, Abstract No 2.56.563)

[No abstract_7

1/1

USSR

UDC: 612.846+612.886

LEVASHOV, M. M. and STOLBKOV, Yu. K., Physiological Vestibular Apparatus Laboratory (Headed by V. A. Kislyakov), I. P. Pavlov Institute of Physiology, USSR Academy of Sciences, Leningrad

"Estimating the Electronystagmogram of a Rabbit in Angular Velocity Units"

Leningrad, Fiziologicheskiv zhurnal SSSR im. I. M. Sechenova, No 10, vol 58, 1972, pp 1535-1542

Abstract: Because the necessity often arises of obtaining the velocity of the slow component in the quantitative estimate of a nystagmus in angular velocity units of degrees per second, the authors propose calibration of the electronystagmogram of a rabbit by using passive or forced rotations of the eye. They give the results of investigations into checking the reliability of this method of calibration, verifying the possibility of its use in various experiments on rabbits, and using it to validate some indirect calibration methods. In these investigations, steel needle-like electrodes are used to avoid the electrooculographic potential, the signal is amplified by the UBP-03 circuit, and is recorded on the N-102 oscillograph. The authors find that

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USSR

UDC: 612.846+612.886

LEVASHOV, M. M., et al, Fiziologicheskii zhurnal SSSR im. I. M. Sechenova, No 10, vol 58, 1972, pp 1535-1542

although a number of problems still remain to be cleared up, the method can now be used in practice.

2/2

- 80 -

USSR

UDC 612.886

KISLYAKOV, V. A., and LEVASHOV, M. M., Laboratory of the Physiology of the Vestibular Apparatus, Institute of Physiology imeni I. P. Pavlov, USSR Academy of Sciences, Leningrad

"Characteristics of the Vestibular-Optokinetic Nystagmus"

Leningrad, Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenova, Vol 57, No 3, Mar 71, pp 380-392

Abstract: The close interdependence between the vestibular and visual systems is most clearly manifested by nystagmus, which is related to both systems. A quantitative comparison was made of nystagmus reactions arising from stimulation of the vestibular apparatus by angular acceleration in the dark and in the light. In the first case only the vestibular apparatus served as a source of afferentation, in the second case, there was afferentation caused by the optic tract as well. Rabbits were used in the experiments. The results obtained showed that optokinetic nystagmus is produced by optokinetic and vestibular excitation; its activity is increased by prolonged vestibular afferentation. The result of combined stimulation is a vestibular nystagmus. The course of the vestibular reaction is sufficiently strong under the effect of an isolated vestibular stimulus and reduced when combined with optokinetic stimulation. The combined stimulation was found to produce a qualitatively

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USSR

KISLYAKOV, V. A., and LEVASHOV, M. M., *Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenova*, Vol 57, No 3, Mar 71, pp 380-392

new reaction of the vestibular-optokinetic type. It differs from either the purely vestibular or the purely optokinetic reflexes but it has several characteristics pertaining to either type of isolated reflex. In particular, this new type of nystagmus must be regarded more as a response to the tracking of moving stimuli than as a response to stimulation of either the vestibular or optokinetic system alone.

2/2

- 68 -

USSR

UDC 612.886

KISLYAKOV, V. A., LEVASHOV, M. M., ORLOV, E. V., and SEMENOV, L. A.,
Laboratory of Physiology of the Vestibular Apparatus, Institute of
Physiology imeni I. P. Pavlov, Academy of Sciences USSR, Leningrad

"Interaction of the Semicircular Canals and Otoliths"

Leningrad, Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenova, Vol 41,
No 12, 1970, pp 1,731-1,744

Abstract: Experiments were performed on pigeons to study the mechanism of action of the otoliths on rotatory, galvanic, and caloric nystagmus. Centrifugal force (CF) was used to stimulate the otoliths. CF was found to exert a modifying influence on reflexes from the semicircular canals. The inhibitory or excitatory effect of centrifugal force depended on the absolute intensity of the CF and on changes in the force with time. Two different mechanisms appear to be involved: (1) in a caloric test, the direct effect of the CF on the hydrodynamics of the semicircular canals, i.e., that portion of the labyrinth associated with the origin of nystagmus; and (2) stimulation of the otolith apparatus and the indirect influence of otolithic afferentation through the central nervous system on reflexes from

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USSR

LISLYAKOV, V. A., et al, Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenova,
Vol 41, No 12, 1970, pp 1,731-1,744

the semicircular canals. While the central mechanisms are mostly involved in altering the characteristics of the rotatory and galvanic varieties of nystagmus, the hydrodynamic processes in the labyrinth are dominant in modifying caloric nystagmus.

2/2

USSR

LEVASHOV, O. V.

"Model of Analysis of Patterns in a Visual System"

Aktual'n. Vopr. Tekhn. Kibernetiki [Pressing Problems of Engineering Cybernetics -- Collection of Works], Moscow, Nauka Press, 1972, pp 268-273 (Translated from Referativnyy Zhurnal, Kibernetika, No 3, Moscow, 1973, Abstract No 3 V722 by the author).

Translation: A model is suggested which calls for the use of local detectors, consideration of mutual placement of local characteristics and enlargement, i.e., formation of complex but local detectors during the learning process. The version of the model is produced as a program for a digital computer. 16 Biblio. Refs.

1/2 022 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--ROENTGENOLOGICAL STUDY OF VEINS OF THE LOWER EXTREMITIES AND PELVIS
-U-
AUTHOR--(03)-KUZMIN, D.S., VEDENSKIY, A.N., LEVASHOV, YU.N.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK KHIRURGII IMENI I. I. GREKOVA, 1970, VOL 104, NR 5, PP
52-57
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--RADIOLOGY, VEIN, EDEMA, DIAGNOSTIC METHODS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAHE--1990/1016

STEP NO--UR/0989/70/104/005/0052/0057

CIRC ACCESSION NO--AP0109167

UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--090CT70

CIRC ACCESSION NO--AP0109167

ABSTRACT/EXTRACT--(U) GP-U- ABSTRACT. IN THE PAPER THE EXPERIENCE WITH ROENTGENOLOGICAL STUDY OF VENOUS SYSTEM OF THE LOWER EXTREMITIES IN 710 PATIENTS AND PELVIC VEINS IN 86 PATIENTS IS SUMMARIZED. THE TECHNIC OF ASCENDING (DISTAL) VENOGRAPHY IN TWO PROJECTIONS, AS WELL AS FUNCTIONAL DYNAMIC, RETROGRADE (DESCENDING) AND PELVIC VENOGRAPHY ARE PRESENTED. EMPHASIS IS LAID ON INDICATIONS AND CONTRAINDICATIONS TO VARIOUS KINDS OF VENOGRAPHIC INVESTIGATION OF VEINS OF THE LOWER EXTREMITIES AND PELVIS IN PATIENTS WITH POSTTHROMBOPHLEBITIC SYNDROME VARICES AND EDEMA OF NON VENOUS ORIGIN. FACILITY: RENTGENOLOGICHESKOGO OTD. AND OTD. FLEBOLOGII KHIRURGICHESKOY KLINIKI LENINGRADSKOGO ORDENA TRUDOVOGO KRASNOGO ZNAMENI N-I INSTITUTA GEMATOLOGII I PERELIVANIYA KROVI.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--PRODUCTS OF THE PHOTOCHEMICAL NITROSATION OF CHLOROCYCLOHEXANE -U-

AUTHOR--(05)--SEMINA, G.N., ZELENSKAYA, L.G., LEVASHOVA, L.A., KUZNETSOVA,
K.YE., STRELTSOVA, A.A.
COUNTRY OF INFO--USSR

SOURCE--NEFTEKHIMIYA 1970, 10(1), 103-9

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ORGANIC OXIME COMPOUND, CHLORINATED ORGANIC COMPOUND,
CYCLOHEXANE, PHOTOCHEMISTRY, NITROSYL CHLORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0904

STEP NO--UR/0204/70/010/001/0103/0109

CIRC ACCESSION NO--AP0124565

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124565

ABSTRACT/EXTRACT--(U) GP-O~ ABSTRACT. NOCL AND HCL, 0.3 AND 0.6 L.-MIN, RESP., WERE BUBBLED INTO 1700 ML CHLOROCYCLOHEXANE AT 25DEGREES USING A 750 W LIGHT; AFTER 8 HR, 240 G HEAVY OIL SEPD., CONTG. 11.6PERCENT CHLOROCYCLOHEXANE, 29.4 HCL, AND 55.9 ISOMERIC CHLOROCYCLOHEXANONE OXIMES. HYDROLYSIS OF AN ALIQUOT WITH 20PERCENT H SUB2 SO SUB4 FOR 30 MIN GAVE 1.9PERCENT CHLOROCYCLOHEXANE, 2.8 CYCLOHEXANONE, 65.0 CHLOROCYCLOHEXANONE, 4.0 CYCLOHEXANONE OXIME, AND 23.4 TAR. THE SOLN. AFTER 10 HR CONTAINED 3.0PERCENT 1,2 TRANS, 2.0 MIXED 1,3 AND 1,4 TRANS, 0.9 1,2 AND 1,4 CIS, 0.5 1,3 CIS, AND 0.3 1,1,DICHLOROCYCLOHEXANES, AND 0.5 TRICHLOROCYCLOHEXANE. IN THE NITROSATION OF CYCLOHEXANE ADDING CHLOROCYCLOHEXANE INCREASED THE CONTENT OF CHLOROCYCLOHEXANONE OXIME IN THE OIL FROM 0.6PERCENT (AT 0.7PERCENT ADDED) TO 4PERCENT (AT 12PERCENT ADDED). FACILITY: GOS. NAUCH.-ISSLEO. PROEKT. INST. AZOT. PROM. PROD. ORG. SIN., MOSCOW, USSR.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--MECHANISM GOVERNING THE FORMATION OF BAINITE STRUCTURE IN
HYPEREUTECTOID STEELS -U-
AUTHOR-(03)-LEVCHENKO, A.A., PIVOVAROV, V.M., TANANIKO, I.A.

COUNTRY OF INFO--USSR

SOURCE--FIZIKA METALLOV I METALLOVEDENIE, FEB. 1970, 29, (2), 329-334

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--STEEL MICROSTRUCTURE, BAINITE, HIGH CARBON STEEL, CARBIDE
PHASE, ELECTRON MICROSCOPY, ALLOY PHASE TRANSFORMATION, HYPEREUTECTOID
STEEL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0339

STEP NO--UR/D126/70/027/002/0329/0334

CIRC ACCESSION NO--AP0127571

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0129571

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FORMATION OF THE BAINITE STRUCTURE IN HIGH C STEELS BY ISOTHERMAL QUENCHING AT 300-500DEGREESC WAS STUDIED IN AN ELECTRON MICROSCOPE AND THE RESULTS WERE CORRELATED WITH X RAY DIFFRACTION DATA. THE CARBIDE PHASE PRECIPITATING IN THE INITIAL STAGES OF THE TRANSFORMATION HAD AN ACICULAR FORM AND RESULTED IN THE DEVELOPMENT OF RELIEF ON THE POLISHED SURFACE OF THE MICROSCETION. THE AUSTENITE DECOMPOSITION PRODUCTS OBTAINED IN THE TEMP. RANGE INDICATED CONSTITUTED A FERRITE-CARBIDE MIXTURE WITH A CLEAR PREFERRED ORIENTATION OF THE CARBIDE PARTICLES.

1/2 022 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--VINYL ARYL ETHERS -U-
AUTHOR--(04)-LEVCHENKO, A.I., MOROZ, R.A., ZATOLKIN, E.I., SMINICH, V.V.
COUNTRY OF INFO--USSR
SOURCE--GER. OFFEN. 1,802,602
DATE PUBLISHED--21MAY70

SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CHEMICAL SYNTHESIS, CHEMICAL PATENT, ETHER, DIELECTRIC
PROPERTY, POLYMERIZATION, NAPHTHENE

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3004/1771 STEP NO--GY/0000/70/000/000/0000/0000
CIRC ACCESSION NO--AAC132037

UNCLASSIFIED

2/2 022 UNCLASSIFIED PROCESSING DATE--13NOV70
 CIRC ACCESSION NO--AA0132037
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. VINYL ETHERS OF AROMATIC COMPOS.
 WERE PREPD. BY REACTION OF AR(R)USBN (WHERE AR EQUALS ARYL; R EQUALS OH,
 SO SUB3 H, NH SUB2, OR HALOGEN; AND N EQUALS 1-2) WITH CAC SUB2 IN H
 SUB2 O AND AN ORG. SOLVENT AT 170-220DEGREES AND 20-70 ATM IN THE
 PRESENCE OF CUCL SUB2 (WHEN R EQUALS HALOGEN) AND KOH OR NaOH. THUS, 5
 AMINOACENAPHTHENE 33.8, KOH 11.2, AND CAC SUB2 64 O IN 52 ML H SUB2 O
 AND 100 ML C SUB6 H SUB6 WAS HEATED TO 195-200DEGREES WITHIN 3 HR AND
 KEPT 18 HR AT 195-200DEGREES WHILE THE PRESSURE ROSE TO A MAX. OF 43 ATM
 AND THEN FELL TO 32 ATM. TO GIVE 71.4PERCENT 5 (VINYLOXY)ACENAPHTHENE.
 OTHER ETHERS PREPD. INCLUDED 5,6 BIS(VINYLOXY)ACENAPHTHENE,
 3(VINYLOXY)PHENANTHRENE, AND 2,7 BIS (VINYLOXY)FLUORENE. ON HEATING,
 THE VINYL ETHERS EASILY FORM HEAT STABLE POLYMERS OF HIGH DIELEC.
 VALUES. FACILITY: KHARKOV POLYTECHNIC INSTITUTE.

UNCLASSIFIED

USSR

UDC 622.24.053.6

NEL'NIKOV, V. I., ZHIDOVITSEV, N. A., LEVCHENKO, A. T., STARKOV, V. N.,
DEKHCHUK, M. M., KOVAL'CHUK, P. P., and PODOBANYI, I. F.

"Test Results of a Wave Reflector"

Moscow, Bureniye -- Referativnyy Nauchno-Tekhnicheskiiy Sbornik (Drilling --
Scientific and Technical Reference Collection of Works), No 1, 1973, pp 7-11

Abstract: Results are presented of tests conducted on a special arrangement of the bottom part of a drilling column, which possesses the capacity of reflecting the vibratory energy generated by the cutting bit. This arrangement, which constitutes an independent structure, is called a superbite wave reflector. The basic configurations of the design and operation of the reflector are described. The existence of the theoretically calculated resonance regime and antiresonance regime was confirmed experimentally. Results of operational tests demonstrated an improvement of drilling parameters in hard rock as a result of application of the reflector. 3 figures, 1 table, 2 references.

1/1

- 66 -

USSR

UDC 621.375.4:621.317

ZAGORSKIY, YA. T. LEVCHENKO, D. G., NOSOV, V. M.

Izmeritel'nyye usiliteli na tranzistorakh (Transistorized Measuring Amplifiers), Moscow, Energiya Press, 1971, 217 pp, 111., 62 k. (from RZh-Radio-tekhnika, No 4, Apr 71, Abstract No 4D120K)

Translation: Means of constructing high accuracy class measuring amplifiers are investigated. Primary attention is given to analysis and synthesis of complex amplifier systems containing dynamic loads, multiloop feedback, and so on. The dependence of the basic parameters of the transistorized measuring amplifiers on the temperature and feed voltage variation is investigated. A method is proposed for analyzing the instability of complex amplifying circuits made of transistors permitting determination of the parameters of the elements insuring autocompensation for instability. Examples of calculating a number of practical circuits are presented. The book is intended for scientific workers and engineers studying and developing amplifiers and also for postgraduates and students in the advanced courses of institutes of electrical engineering and radio engineering specialties.

1/1

USSR

UDC: 621.375.4

ZAGORSKIY, Ya. T., LEVCHENKO, D. G.

"Analysis of the Instability of Transistorized Amplifiers With a Change in Supply Voltage"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. i inzhiniringu. T. 3 (Reports of the All-Union Scientific and Technical Conference on Radio Engineering Measurements. Vol. 3), Novosibirsk, 1970, pp 97-101 (from Radio-Tekhnika, No 12, Dec 70, Abstract No 12D116)

Translation: The paper gives a comparative analysis of voltage gain instability for amplifiers based on common emitter and common base circuits. Self-compensation conditions are considered. Four illustrations, bibliography of five titles. N. S.

1/1

USSR

UDC: 621.317.79

LEVCHENKO, D. G., YANCHURKIN, V. S.

"On the Design of Highly Selective Low-Frequency Measurement Amplifiers"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 3 (Re-
ports of the All-Union Scientific and Technical Conference on Radio Engineer-
ing Measurements. Vol. 3), Novosibirsk, 1970, pp 114-118 (From RZh-Radiotekh-
nika, No 1, Jan 71, Abstract No 1A374)

Translation: A device is described which is designed for use as a null indicator in AC bridges and other similar equipment. The distinguishing element of this null indicator is a selective device with LC tank and with Q multiplication. The stability of the latter without self-excitation depends on the stability of the elements of the tank circuit and the stability of the negative resistance introduced into the circuit by an electronic system which consists of a summing repeater and a positive feedback circuit. For preamplification ($\sim 10^7$), a wide-band amplifier is used with deep negative feedback. Details of the new circuit are presented and its advantage over previous models is shown. Bibliography of eight titles.

1/1

USSR

ENC 621.375.4.001

ZAGORSKIY, YA. T., LEVCHENKO, D. G., SHMOYLOV, N. F.

"Analysis and Synthesis of Transistorized Amplifiers with the Help of Fitness Domains"

Tr. Sib. n.-i. in-t metrol. (Works of the Siberian Scientific Research Institute of Metrology), 1970, vyp. 5, pp 88-97 (from IZh-Hadlotekhnika, No 9, Sep 70, Abstract No 9098)

Translation: The tediousness of the existing methods of calculating transistorized amplifiers insuring reliability is noted. A method permitting calculation of the parameters of the elements of the device (in particular, the amplifier) so that when they vary within defined limits the defined parameters of the device vary only within the limits of the given tolerances is discussed. There are three illustrations and a six-entry bibliography.

1/1

USSR

UDC 621.375.4

GRINBERG, I. P., ZAGORSKIY, YA. T., LEVCHENKO, D. G.

"Methods of Analyzing the Instability of Transistor Amplifiers (Survey)"

Tr. Sib. n.-i in-t metrol. (Works of Siberian Scientific Research Institute of Metrology), 1970, vyp. 5, pp 62-71 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D109)

Translation: A critical analysis of the existing methods of analysis are presented. Preference is given to the Nosov and Khazanov method (Radiotekhnika, 1958, No 2) based on investigation of the operation of transistors in an amplifier using r-parameters of the T-type equivalent circuit and the dependence of the parameters on temperature, the p-n junction material and the power supply conditions. The advantages of the method of structural schematics are also demonstrated. There are three illustrations and a 27-entry bibliography

1/1

USSR

UDC 621.375.432.3

LEVCHENKO, D. G., YANCHURKIN, B. S.

"Study of the Frequency Characteristics of Two-Transistor Emitter Repeaters"

Tr. Sib. n.-i. in-t metrol. (Work of the Siberian Scientific Research Institute of Metrology), 1970, vyp. 5, pp 54-61 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D125)

Translation: Some schematics of two-transistor emitter repeaters -- component, amplifying, summing -- are presented. The results of experimental investigation of the frequency dependence of the transmission coefficient with respect to voltage and phase shift of the input and output voltages for these circuits and also the frequency dependence of the input impedance are discussed. There are eight illustrations and a seven-entry bibliography.

1/1

USSR

UDC 621.375.4.001

ZAGORSKIY, YA. T., LEVCHENKO, D. G.

"Method of Analyzing the Instability of Transistor Amplifying Circuits with Variable Parameters"

Tr. Sib. n.-i. in-t metrol. Works of the Siberian Scientific Research Institute of Metrology), 1970, vyp 5, pp 72-87 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9D100)

Translation: This article contains a discussion of an analysis method which, on the basis of graph theory, permits consideration of the cause-effect relations determining the operation of the amplifier in the presence of higher effects by construction of a structural schematic the nodes of which represent the variables, and the branches, the interrelations between them. The return current of the collector junction and the base-emitter voltage of the transistor are selected as the static parameters, and the h-parameters are selected as the dynamic parameters. The method permits quantitative analysis of instability and determination of the conditions of its auto-compensation. There are five illustrations, one table and a four-entry bibliography.

1/1

USSR

UDC 621.396.6.002.621.793

KUMLEVA, L. A., NIKOLAYEVA, N. M., KOROLEV, A. L., MAKEYEVA, Ye. D., LEVCHENKO, D. N.,
ABAKUMOVA, G. S., LIPOVSKAYA, N. I.

"Lubricating Grease"

USSR Author's Certificate No 253961, Filed 27 Jul 68, Published 26 Feb 70 (from
RZh-Radiotekhnika, No 10, Oct 70, Abstract No 10V295 P)

Translation: The authors propose a lubricating grease based on a dispersion medium thickened with silica gel, to which liquid polyoxyalkyleneglycol is added as the dispersion medium. In order to loosen and remove oxide films from metals, polyatomic phenol is added to the lubricant in quantities of 0.1-10%, silica gel is used in quantities of 5-15%, and liquid polyoxyalkyleneglycol -- 95-98%.

1/1

- USSR

ROTOV, V. I., and LEVCHENKO, I. D., Ukrainian Scientific Research Institute of Agricultural Microbiology

"Susceptibility of Sheep to Infection With Br. suis Under Experimental Conditions"

Kiev, Mikrobiologicheskii Zhurnal, Vol 33, No 6, Nov/Dec 71, pp 782-783

Abstract: It has been reported in the literature that sheep are not susceptible to infection with Br. suis. In experiments conducted by the authors, eight passages of Br. suis strain No 1330 through sheep were carried out, using two sheep for every passage - i.e., 16 sheep altogether. The sheep were sacrificed between the 20th and 45th day after infection, whereupon material from parenchymatous organs and lymph nodes was seeded on culture media and cultivation was carried out at 37°C for 3-4 weeks. Upon infection of the sheep, the latter exhibited short-lived fever and an immunological reconstruction of the organism took place which resulted in an increased agglutinin titer on the 10th day after infection. Br. suis became adapted to the organism of the sheep; this was shown by the fact that Brucellae could be isolated from pathological material subjected to microbiological testing. During the eight passages the pathogenicity of Br. suis to the sheep increased, so that finally abortion resulted.

1/2

- 78 -

USSR

ROTOV, V. I., and LEVCHENKO, I. D., Mikrobiologicheskiy Zhurnal, Vol 33, No 6, Nov/Dec 71, pp 782-783

A hemoculture of Brucellae could not be isolated from the blood of the infected sheep, although a considerable number of the experimental animals showed signs of local infection with Br. suis.

2/2

UNCLASSIFIED

PROCESSING DATE--300CT70

TITLE--SOME RESULTS OF STUDY OF ORGANIZATION OF HELMINTHIC DISEASES
CONTROL IN ROVNO AND CHERNOVTSY REGIONS OF THE UKRAINIAN SSR -U-
AUTHOR-(05)-SHULMAN, YE.S., VOLOSYUK, V.P., ZHELOMUB, I.YA., LYUBAVINA,
N.G., LEVCHENKO, I.F.
COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA PARAZITOLOGIYA I PARAZITARNYYE BOLEZNI, 1970, VOL
39, NR 3, PP 356-359
DATE PUBLISHED--70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PARASITIC DISEASE, DISEASE CONTROL, INTESTINAL DISEASE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--2000/0224

STEP NO--UR/0358/70/039/003/0356/0359

IRC ACCESSION NO--AP0123987

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